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RP-1580A RAYO 9321.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of William C. Bushong, et al.

Art Unit 2838

Serial No. 10/697,221 Filed October 27, 2003 Confirmation No. 9783

For METHOD AND APPARATUS FOR REGULATING CHARGING OF

ELECTROCHEMICAL CELLS

March 2, 2006

TO THE COMMISSIONER FOR PATENTS,

SIR:

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R. 1.97 and 1.98 and MPEP 609, and in compliance with the duty of disclosure set forth in 37 C.F.R. 1.56, applicants submit the attached PTO/SB/08A for consideration by the Patent and Trademark Office in the above-entitled application and to be made of record therein.

Applicants submit herewith copies of reference numbers 68-69, 71-72, and 89-90 listed on the attached PTO/SB/08A. The foreign patent documents and/or literature reference numbers 65-67, 70, and 73-88, listed on the attached PTO/SB/08A, have been previously submitted in parent application Serial No. 10/045,934 and, therefore, in accordance with MPEP 609, are not being provided at this time.

This Information Disclosure Statement is being submitted pursuant to 37 C.F.R. §1.97(b) in that applicants believe that it is being filed prior to the mailing date of the first Office action on the merits. Accordingly neither a statement nor fee under 37 C.F.R. §1.97(c) or (d) is required. However, if an Office action was issued prior to the date of mailing of this Information Disclosure Statement, the Commissioner is hereby authorized to charge any required fees regarding this Information Disclosure Statement to Deposit Account No. 19-1345.

Respectfully submitted,

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Mail Stop Amendment

RP-1580A RAYO 9321.1

CERTIFICATE OF MAILING

I certify that this Information Disclosure Statement in the application of William C. as a shong, et all, Serial No. 10/697,221, filed October 27, 2003, is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on this 2nd day of March, 2006.

Christina M. Spencer

LJH/cms

PTO/SB/08A	Complete if Known		
•	Application Number	10/697,221	
INFORMATION DISCLOSURE	Filing Date	October 27, 2003	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Confirmation Number	9783	
/ % \	First Named Inventor	William C. Bushong	
MAR 0 6 2006 ()	Group Art Unit	2838	
	Examiner Name	Jonathan Crepeau	
Sheet Pransaction of 4	Attorney Docket No.	RAYO 9321.1 (RP-1580A)	

		U.S.	PATENT	DOCUMENTS	
Examiner Initials*	Cite No.1	U.S. Patent Docume	ent Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
	1	3,097,975		Horn, et al.	07-16-1963
	2	3,614,583		Burkett, et al.	10-19-1971
	3	3,617,386		Bosben, et al.	11-02-1971
	4	3,622,397		Belove	11-23-1971
	5	3,775,661		Frezzolini, et al.	11-27-1973
	6	4,025,696		Tucholski, et al.	05-24-1977
	7	4,028,478		Tucholski	06-07-1977
	8	4,035,552		Epstein	07-12-1977
	9	4,690,879		Huhndorff, et al.	09-01-1987
	10	4,756,983		Tucholski	07-12-1988
	11	4,818,641		Ledenican	04-04-1989
	12	4,855,195		Georgopoulos, et al.	08-08-1989
	13	4,871,553		Huhndorff	10-03-1989
	14	4,937,153		Huhndorff	06-26-1990
	15	4,943,497		Oishi, et al.	07-24-1990
	16	4,959,604		Cuesta	09-25-1990
	17	4,975,341		Tucholski, et al.	12-04-1990
	18	4,992,339		Georgopoulos	02-12-1991
	19	4,992,344		Coppers	02-12-1991
	20	5,026,615		Tucholski	06-25-1991
	21	5,028,860		Amano	07-02-1991
	22	5,057,382		Tucholski	10-15-1991
	23	5,188,909		Pedicini	02-23-1993
	24	5,405,715		Dawson, et al.	04-11-1995
	25	5,418,082		Taki, et al.	05-23-1995
	26	5,508,598		Al-Abassy	04-16-1996
	27	5,541,496		Simmonds	07-30-1996

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ³Enter Office that issued the document, by the two-letter code (WIPO Standard). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶Applicant is to place a check mark here if English Translation is attached or place an "A" here if English language abstract is attached.

PTO/SB/08A			Complete if Known				
			Applicat	tion Number	10/697,221		
INFO	RMATIO	N DISCLOSURE	Filing D	ate	October 27, 2003		
STAT	TEMENT	BY APPLICANT		ation Number	9783		
			First Named Inventor		William C. Bushong		
			Group A	Art Unit	2838		
				er Name	Jonathan Crepeau		
Sheet	2	of 4	Attorne	y Docket No.	RAYO 9321.1 (RP-1580A		
	28	5,589,755		Kaite, et al.	12-31-1996		
	29	5,609,972		Kaschmitter, et al.	03-11-1997		
	30	5,637,981		Nagai, et al.	06-10-1997		
	31	5,691,073		Vu, et al.	11-25-1997		
	32	5,705,290		Azema	01-06-1998		
	33	5,721,480		Morioka	02-24-1998		
	34	5,741,606		Mayer, et al.	04-21-1998		
	35	5,747,187		Byon	05-05-1998		
	36	5,747,969		Tamai	05-05-1998		
	37	5,856,043		Oshaki, et al.	01-05-1999		
	38	5,872,444		Nagano, et al.	02-16-1999		
	39	5,879,832		Vu, et al.	03-09-1999		
	40	5,903,136		Takahashi, et al.	05-11-1999		
	41	5,905,362		Nagano, et al.	05-18-1999		
	42	5,945,811		Hasagawa, et al.	08-31-1999		
	43	5,955,868		Kaite, et al.	09-21-1999		
	44	5,985,479		Boolish, et al.	11-16-1999		
	45	5,998,051		Poirier, et al.	12-07-1999		
	46	6,008,620		Nagano, et al.	12-28-1999		
	47	6,018,286		Quinn, et al.	01-25-2000		
,	48	6,063,518		Dewulf, et al.	05-16-2000		
	49	6,069,551		Kalapodis, et al.	05-30-2000		
	50	6,083,639		McHugh, et al.	07-04-2000		
	51	6,087,810		Yoshida	07-11-2000		
	52	6,078,244		Quinn, et al.	06-20-2000		
	53	6,080,506		Davis, et al.	06-27-2000		
	54	6,104,165		Miyamoto, et al.	08-15-2000		
	55	6,118,254		Faulk	09-12-2000		
	56	6,207,319	B1	Nam	03-27-2001		
	57	6,207,320	B1	Song, et al.	03-27-2001		
	58	6,366,056	B1	Podrazhansky, et al.	04-02-2002		
	59	6,366,057	B1	Nakatsuji	04-02-2002		
	60	6,376,120	B1	Azema	04-23-2002		
Examiner				Date			

Examiner	Date	
Signature	Considered	

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PTO/SB/0)8A		-		Complete if	Knov	wn	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT						10/697,221		
						October 27, 2003		
				tion Number		9783		
				ned Inventor		William C. Bushong		
				Group A	·	283		
				Examine			athan Crepeau	
Sheet	3	of	4		Docket No.		O 9321.1 (RP-158	0A)
<u> </u>	<u> </u>		<u></u>	, <u>,</u>		1.0		
	61	6,771,0	50	B2	Yamashita		08-03-2004	
	62	2002/00		A1	Chen, et al.		05-30-2002	
	63	2002/00	070709	A1	Small, et al.		06-13-2002	
	64	2003/00	027037	A1	Moores, Jr., et al.		02-06-2003	
		1		GN PATE	NT DOCUMENTS			
		For	reign Patent Doc					
Examiner Initials	Cite No.1	Office	Number ⁴	Kind Code (if	Name of Patentee or Appl of Cited Document	icant	Date of Publication of Cited Document MM-DD-YYYY	T _e
				known)				
	65	GB	2 349 284	Α	AEA Technology plc		10-25-2000	
	66	AU	199926971	B2	Cochlear Limited		09-04-2003	
	67	JP	09320562 (abstract)		Shin Kobe Electric Mach	inery	12-12-1997	
	68	EP	0 470 726	A1	Eveready Battery Compa Inc.	any,	02-12-1992	
	69	EP	1 429 402	A2	Rayovac Corporation		06-16-2004	
	70	WO	96/35253	A1	Philips Electronics N.V.		11-07-1996	
	71	WO	02/35618	A1	Rayovac Corporation		05-02-2002	
	72	WO	03/028186	A1	JDP Innovations Inc.		04-03-2003	
	73	СН	372094		Jiro Kosuga		11-15-1963	
		ОТНІ	ER ART - NO	N PATEN	T LITERATURE DOCUI	MENT	ΓS	
Examiner Initials	Cite No. ¹	Include of the ite	em (book, magaz	ine, journal,	AL LETTERS), title of the ar serial, symposium, catalog, isher, city and/or country who	etc.), d	late, page(s), volume-	T ⁶
	74		CARSON, Jr., et al., "Rapid Recharging of Nickel-Cadmium Batteries," <i>Power Sources 2</i> , (1968), pp. 181-197.					
	75		COYLE, et al., "Ultra-Fast Nickel Cadmium Batteries Charger," New Developments in Electrical Vehicles for Disabled Persons, (1995), pp. 8/1 to 8/5.					
	76	PCIM J	FALCON, C.B., "Fast Charge Termination Methods for NiCd and NiMH Batteries," <i>PCIM Journal</i> , (1994), pp. 10-18.					
	77		FUJIKAWA, K., "The New Cylindrical Sealed Ni-Cd Battery, 250 AAP, and its Charger, ZLC 8.4-0.35T," Yuasa Jiho, (1986), Vol. 61, pp. 35-41.					
	78	GLADS	TONE, et al., "I	Demand Pu	ulse Charging for Nickel-Coce, 1969, (1969), Vol. 23, p	admiu		
	79				the Examination of Charg			
Examiner	-		Date					
Signature					Considered			

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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			First Named Inventor	William C. Bushong			
			Group Art Unit	2838			
				Examiner Name	Jonathan Crepeau		
Sheet	4	of	4	Attorney Docket No.	RAYO 9321.1 (RP-1580A)		

 ,		
	Nickel Cadmium and lead Acid Batteries," Caplus (2002).	
80	HOSHINO, K., "Ultra Rapid Charge Ni-Cd Battery," National Technical Report, (1991) Vol. 37, pp. 59-63.	
81	JUVINALL, G.L., "A Novel Negative-Limited Sealed Nickel-Cadmium Cell," U9th Intersociety Energy Conversion Engineering Conference Proceedings, (1974) pp. 881-887.	
82	KANTER, et al., "Investigation of Hermetically Sealed Maintenance-Free, High Rate, Nickel-Cadmium Batteries for Aircraft Applications," Contract Report for Air Force Aero Propulsion Laboratory Project No. 8173 (1996).	
83	LATNER, N., "A Fast Charger for Nickel-Cadmium Batteries," <i>Health Physics</i> , (1972) Vol. 23, pp. 580-582.	
84	TSUDA, S., "Quick Charge Characteristics of Sealed Nickel-Cadmium Rechargeable Batteries," <i>National Technical Report</i> (1978), Vol. 24, pp. 313-320.	
85	WATANABE, Y., "PANANICA Quick Chargers for Portable VCR and Color Camera," <i>National Technical Report</i> , (1978) Vol. 24, pp. 393-398.	
86	WUIDART, L., "Ultra Fast NiCd Battery Charger with Integrated Magnetic," Official Proceedings of the Nineteenth International Intelligent Motion (PCIM) Conference, (1991), pp. 352-365.	
87	WUIDART, L., "Monitoring an Ultra Fast Battery Charger with a ST6210 Micro-Controller," <i>EPE Journal</i> , (1992) Vol. 2, pp. 35-38.	
88	YANG, et al., "Charge Performance of a Commercial Nickel Metal Hydride Traction Battery System," <i>Journal of the Electrochemical Society</i> , (2001) Vol. 148, pp. A1023-A1028.	
89	International Search Report from PCT/US03/34363, dated 01-19-2005.	
90	International Search Report from PCT/US01/32571, dated 03-20-2002.	

Examiner	Date	
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